

## CLAIMS

Claim 1. (Currently Amended) A strain of a micro-organism comprising NADPH-oxidizing activity that is limited by a deletion of at least one gene coding for a quinone oxidoreductase ~~and/or~~ or a soluble transhydrogenase, and wherein said strain has undergone a modification that ~~favours~~ enhances at least one NADP<sup>+</sup>-reducing enzyme ~~activities~~ activity of said strain by a deletion of at least one gene coding for a phosphoglucose isomerase ~~and/or~~ or a phosphofructokinase.

Claim 2-4. (Cancelled)

Claim 5. (Currently Amended) A strain according to Claim 1, wherein said strain has undergone a modification of at least one gene coding for at least one of a dihydrolipoamide dehydrogenase and a glyceraldehyde 3-phosphate dehydrogenase ~~so as to cause it to utilize NADP preferentially~~.

Claim 6. (Previously Presented) A strain according to Claim 1, wherein said strain overexpresses at least one gene coding for a glucose 6-phosphate dehydrogenase, a 6-phosphogluconolactonase, a 6-phosphogluconate dehydrogenase, an isocitrate dehydrogenase, or a membrane-bound transhydrogenase.

Claim 7. (Previously Presented) A strain according to Claim 1, wherein said strain has undergone a modification of at least one gene coding for a 6-phosphogluconate dehydratase, a malate synthase, an isocitrate lyase, or an isocitrate dehydrogenase kinase/phosphatase.

Claim 8. (Previously Presented) A strain according to Claim 1, wherein said strain comprises at least one endogenous or exogenous gene coding for an enzyme involved in the biotransformation of a substance of interest.

Claim 9. (Previously Presented) A strain according to Claim 1, wherein said strain comprises at least one selection marker gene.

Claim 10. (Previously Presented) A strain according to Claim 1, wherein said strain is selected from the group consisting of *Aspergillus sp.*, *Bacillus sp.*, *Brevibacterium sp.*, *Clostridium sp.*, *Corynebacterium sp.*, *Escherichia sp.*, *Gluconobacter sp.*, *Penicillium sp.*, *Pichia sp.*, *Pseudomonas sp.*, *Rhodococcus sp.*, *Saccharomyces sp.*, *Streptomyces sp.*, *Xanthomonas sp.* and *Candida sp.*

Claim 11. (Currently Amended) A method for the preparation of the strain of Claim 1 comprising:

- (a) deleting at least one gene coding for a quinone oxidoreductase ~~and/or~~ or a soluble transhydrogenase, and
- (b) deleting at least one gene coding for a phosphoglucose isomerase, a phosphofructokinase, a 6-phosphogluconate dehydratase, a malate synthase, an isocitrate lyase or an isocitrate dehydrogenase kinase/phosphatase, and
- (c) optionally modifying at least one gene coding for at least one of a dihydrolipoamide dehydrogenase and a glyceraldehyde 3-phosphate dehydrogenase, ~~so as to cause it to utilize NADP preferentially, which deletion and modification are carried out by appropriate means,~~ and
- (d) optionally overexpressing at least one gene coding for a glucose 6-phosphate dehydrogenase, a 6-phosphogluconolactonase, a 6-phosphogluconate dehydrogenase, an isocitrate dehydrogenase, or a membrane transhydrogenase, either by converting the strain by means of an appropriate vector containing at least one gene coding for one or more enzymes involved in the biotransformation of at least one of a substance of interest and at least one selection marker genes, or by modifying the strength of the endogenous promoter or promoters controlling the gene or genes to be overexpressed.

12. (Previously Presented) A method for the production of a substance of interest formed by a biosynthesis route of which at least one step is NADPH-dependent comprising:

- a) growing micro-organisms of the strain of Claim 1 in an appropriate culture medium that favours their growth and contains substances necessary for carrying out biotransformations by fermentation or bioconversion, except NADPH; and
- b) extracting a substance of interest from the medium and optionally purifying said substance.

13. (Previously Presented) The method according to Claim 12 characterized in that the substance of interest is an amino acid, or a vitamin, or a sterol, or a flavonoid, or a fatty acid, or an organic acid, or a polyol or a hydroxyester.

14. (New) The method according to claim 13, wherein said substance of interest is an amino acid.

15. (New) A strain according to claim 1, wherein said NADPH-oxidizing activity is limited by a deletion of at least one gene coding for a quinone oxidoreductase and a soluble transhydrogenase.

16. (New) A strain according to claim 1, wherein said strain has undergone a modification that enhances at least one NADP<sup>+</sup>-reducing enzyme activity of said strain by a deletion of at least one gene coding for a phosphoglucose isomerase and a phosphofructokinase